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The Role of Industry in Addictive Behaviors: An Analysis of Commercial Determinants of Health

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ABSTRACT

The study of addictive behaviors has historically been approached from an idiographic perspective. However, in recent years, a broader approach has been promoted, integrating contextual, sociocultural, political, and commercial determinants that contribute to the development of addictions. Commercial determinants of health (CDH) refer to the practices of industries that influence patterns of health, diseases, and addiction in the population. This article aims to outline the strategies employed by industries related to addictive behaviors, such as political practices (e.g., lobbying), interference in scientific research (e.g., funding studies), language manipulation, marketing strategies, and reputation management practices (e.g., corporate social responsibility). Furthermore, several measures of control or environmental prevention are proposed, including transparency, measures to reduce availability and accessibility, product regulation, and measures to regulate marketing.

El Papel de la Industria en las Conductas Adictivas: un Análisis de los Determinantes Comerciales de la Salud


RESUMEN

El estudio de las conductas adictivas ha sido históricamente abordado desde una perspectiva idiográfica. Sin embargo, en los últimos años, se ha promovido un enfoque más amplio que integra determinantes contextuales, socioculturales, políticos y comerciales que contribuyen al desarrollo de las adicciones. Los determinantes comerciales de la salud (DCS) hacen referencia a las prácticas de las industrias que influyen en los patrones de salud, enfermedad y adicción de la población. El presente trabajo tiene como objetivo exponer las estrategias empleadas por las industrias vinculadas a las conductas adictivas, tales como prácticas políticas (p. ej., *lobbying*), prácticas de intromisión en investigación científica (p. ej., financiación de estudios), manipulación del lenguaje, estrategias de marketing y prácticas de gestión de la reputación (p. ej., responsabilidad social corporativa). Asimismo, se proponen diversas medidas de control o prevención ambiental, entre las que se incluyen la transparencia, medidas de reducción de disponibilidad y accesibilidad, la regulación del producto, y medidas para regular el marketing.

Palabras clave

Determinantes comerciales de la salud
Conductas adictivas
Medidas de control
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Commercial Determinants of Health

Classically, the study of addictive behaviors has been conducted from an idiographic model, i.e., focused on the study of individual variables to explain the underlying mechanism of addiction. In this regard, multiple characteristics have been examined as risk factors for addictive behaviors—demographic (e.g., age, gender), psychological (e.g., emotion regulation, self-esteem), cognitive (e.g., impulsivity, inhibition), and social (e.g., family, social class) (Allami et al., 2021; Brady et al., 2019).

This paradigm of the study of addiction associated with individual pathology has led to a narrative based on individual risk and personal responsibility, since it focuses on the "problematic" consumer or user rather than on the problematic products being marketed. Consequently, in recent years, it has been emphasized that the study of and approach to addictive behaviors should be conducted from a broader perspective, also analyzing the contextual, sociocultural, environmental, commercial, and political determinants that may contribute to the development of problematic use (Gilmore et al., 2023; McKee & Stuckler, 2018; Thomas et al., 2023). In this context, it is increasingly evident that some practices with negative health effects, among them addictive behaviors, are driven and promoted by the interests of the industry that markets them, which are in conflict with the priorities of public health.

These tactics employed by industry that impact the health of citizens are known as commercial determinants of health (CDH). Although there is no unanimously accepted definition, CHD can be defined as the "systems, practices, and pathways through which commercial actors influence human health and equity" (Gilmore et al., 2023). More concretely, Freudenberg et al. (2021) define them as "the social, political, and economic structures, norms, rules, and practices through which commercial activities designed to generate profits and increase market share influence patterns of health, illness, injury, disability, and death within and across populations." Thus, CDHs provide an essential framework for analyzing how business and commercial activities can exert an inappropriate influence on health, in this case through addictive behaviors.

Tobacco was the first example where awareness was raised about the role of the tobacco industry in people's health (Thomas et al., 2024). This triggered further scrutiny of other industries, including other potentially addictive products (e.g., alcohol, cannabis) (Adams et al., 2021), unhealthy lifestyles (e.g., food industry) (de Lacy-Vawdon et al., 2023), and fossil fuels (Wood et al., 2024), among others. The different industries not only share their practices, but often also work together (Gilmore et al., 2023). Moreover, all these commercial actors use strikingly similar strategies and tactics to those employed by the tobacco industry (de Lacy-Vawdon et al., 2023) and, consequently, advances in tobacco control demonstrate that health protection policies are feasible and effective (Thomas et al., 2024).

Tactics and Strategies for Commercial Determinants of Health

CDHs use a multitude of strategies and tactics to promote the use of their products, minimize the perception of associated risks, and thereby normalize their consumption, with the goal of increasing sales and maximizing profits. Although the strategies and tactics

can be classified in multiple ways, in this manuscript they are categorized as follows: 1) political practices; 2) practices to reframe the public debate; 3) marketing strategies; and 4) reputation management practices.

Political Practices

Lobbying is a strategic activity by which commercial actors or industries seek to influence the decision making of policy makers, government, or regulators in order to promote specific objectives and, consequently, protect their economic and commercial interests and minimize legal constraints (Lacy-Nichols, Quinn et al., 2023). These activities include meetings with political representatives (e.g., members of government, parliamentarians), contributions to election campaigns, revolving doors, drafting policy proposals, and using the media to frame issues and debates, among others (Crosbie et al., 2024; Lacy-Nichols & Cullerton, 2023; Matthes et al., 2023; Savell et al., 2016). All of these strategies are ultimately aimed at using their power (economic and political) to oppose public health regulatory measures that scientific evidence has shown to be effective, or at least dilute or postpone them.

Lobbying has been widely studied and recognized in the field of addictions, especially in the tobacco and alcohol industries. Industries have created or allied themselves with different groups, societies, companies, and institutions, seemingly independent, that defend industry interests (Lesch & McCambridge, 2022; Leung et al., 2023; Morley et al., 2002; Rotman et al., 2022) (e.g., *Fundación por un Mundo Libre de Humo* [Foundation for a Smoke-Free World], *Plataforma para la reducción del daño por tabaquismo* [Platform for Smoking Harm Reduction], *Fundación Alcohol y Sociedad* [Alcohol and Society Foundation]). Another clear example of this strategy can be seen in the opposition to smoking bans in bars and restaurants. In this context, different groups financed by the tobacco industry established alliances with the hospitality sector in order to stop these regulations, arguing that they would negatively affect the sector's economy. Among the tactics employed was the "*Courtesy of Choice*" campaign, which proposed a seemingly balanced solution: allowing smokers and non-smokers to share public spaces by creating designated smoking areas. This initiative, presented as a fair alternative, not only sought to avoid stricter restrictions and preserve the presence of tobacco in social settings, but also ensured the continuity of the industry's profits, disguising its commercial interests under the argument of coexistence and freedom of choice (Sebrié & Glantz, 2007; Velicer & Glantz, 2015).

With respect to other industries with a shorter historical track record, it is worth mentioning that, following the legalization of cannabis in some territories, there has been a significant increase in lobbying expenditure, a lack of transparency in support and strategic alliances with other industries to oppose public health measures, and a significant influence on the policies carried out (Rotering & Apollonio, 2022). In the gambling arena, gambling operators have allied with various associations and lobby groups to interfere with public health measures (Lacy-Nichols, Christie et al., 2023). There are numerous associations, ostensibly independent, that include staff from different gambling operators on their board of directors. As an example, the *Asociación Española de Juego Digital* [Spanish Digital Gambling Association] (JDigital) defines itself as "a non-

profit association whose main objective is to promote safe and responsible environments and conditions for online gambling activity", including in its board of directors exclusively representatives of different gambling operators (e.g., Luckia, Bet365, Betway, Codere).

Another lobbying strategy is **strategic litigation**, i.e., lawsuits to prevent, delay, or eliminate regulatory measures. For example, the tobacco industry has sued different countries that have implemented generic or plain packaging under commercial rights infringement grounds (Hawkins et al., 2019; Moodie et al., 2022), or have tried to interfere with *Endgame* policies (i.e., control measures that seek to reduce and eliminate the prevalence of tobacco and nicotine consumption) by excluding e-cigarettes from them (Tobacco Tactics, 2024). In the field of gambling, on the other hand, gambling operators have influenced the legal regulation in Spain by filing a lawsuit against Royal Decree 958/2020. As a result, the [General Council of the Judiciary \(2024\)](#) has recently repealed some articles of that Royal Decree, such as the appearance of persons of public relevance or the possibility of issuing personalized promotions.

As an alternative to these regulations proposed by governments, the industries promote and defend **self-regulation**, i.e., that the companies or industries themselves voluntarily establish and apply their own standards, limitations, or restrictions. This implies the development of symbolic control mechanisms that prioritize the commercial interests of the industries over public health. Consequently, these measures are systematically insufficient, inconsistent, or they are designed to avoid stricter regulations but not to promote public health (Noel et al., 2017; Selin, 2016). Ultimately, based on a public health model, it is argued that **those who are part of the problem can never be part of the solution.**

Practices for Reframing the Public Debate

Industries try to reframe the public debate by focusing the responsibility for the problem on the individual, exempting themselves from any responsibility, manipulating the language, and highlighting the economic impact of the industries.

Shifting the focus to **individual responsibility** points the finger exclusively at problem consumers or users rather than problem products. The industry alludes to the fact that individuals have sufficient and necessary information to make their decisions (e.g., "smoking kills") and that, if they make the decision to engage in the addictive behavior, it is a free, reasoned, and responsible decision. As an example, slogans of "drink in moderation, it's your responsibility" or "consume within a healthy and balanced diet" that accompany products place the responsibility on the consumer (Casswell, 2018; Savell et al., 2016). Similarly, gambling prevention campaigns by operators have "responsible gambling" as their slogan, where it is understood that gambling is a legal recreational and entertainment activity, and that problem gambling is the result of a series of wrong decisions or ill-informed choices on the part of the gambler (Hancock & Smith, 2017; Miller & Thomas, 2018).

Another of the strategies used where the reformulation of public debate is evident is through the **manipulation of language**. Industries try to avoid any terminology related to their toxic products. For example, they prefer to use the terminology *white snus* versus *nicotine pouches*, *vapers* versus *e-cigarettes*, *energy*

drinks instead of *high-caffeine drinks*, or acronyms such as *THC* or *CBD* instead of *cannabis*. They also manipulate language by omitting part of the product's ingredients or its toxicity (e.g., associating *vaper* as water vapor), highlighting positive qualities of the product (e.g., taste, low calories), promoting a different route of administration (e.g., oral cannabis) or associating their product with different positive experiences (e.g., extreme sports, friendships) (Aonso-Diego, 2024; Aonso-Diego, Macía et al., 2025; Aonso-Diego & Rey-Torres, 2024; Isorna & Villanueva-Blasco, 2022). Another form of language manipulation is directly lying about the product or the consequences of legal regulation. For example, claiming that taxation is ineffective, that it does not reduce the prevalence of consumption, that it increases illicit trade, or that its advertising does not target young people (Crosbie et al., 2024; Millot et al., 2024).

Finally, it is worth noting how they use the potential **economic impact** to justify their activity and, ultimately, avoid or reduce the regulation of their products (CEJUEGO, 2024; Mesa del Tabaco, 2020). Along these lines, they allude that different industries are wealth generators, as they participate in providing financial incentives (e.g., direct and indirect employment), in creating stakeholders (e.g., governments collaborating with the industry), or in substituting policies (e.g., educational and informational programs for customers rather than public health) (Action on Smoking and Health, 2011; Sama & Hiilamo, 2019; Savell et al., 2016). On the other hand, they emphasize short-term gains (e.g., tobacco taxes, employment generation) rather than long-term costs (e.g., social and health costs linked to the problems caused), which have been shown to be significantly higher (DeCicca et al., 2022; Warner, 2000).

This reformulation of the public debate is carried out in different ways, the most relevant being **funding scientific studies**, concealing their involvement, as well as casting doubt on the results that contradict their interests. This phenomenon has been widely evidenced in the case of tobacco (McDonald et al., 2023), alcohol (McCambridge & Mialon, 2018; Ramsbottom et al., 2022), cannabis (Bowling & Glantz, 2019; Grundy et al., 2023), and gambling (Collins et al., 2020; Dun-Campbell et al., 2023; Ladouceur et al., 2019), among others. Numerous studies have shown that industry-funded research yields results more favorable to their interests (Hendlin et al., 2019; Martínez et al., 2018; Pisinger et al., 2019; Vassey et al., 2023). However, it is important to note that conflicts of interest do not accurately reflect all of the authors' interests (McDonald et al., 2023), as it is not uncommon to find inaccuracies and omissions in the disclosures of conflicts of interest that authors are required to indicate in scientific journals.

Industries, in their efforts to resist change and perpetuate the status quo, tend to promote the use of other products marketed by the same industry as substitutes for those originally identified as harmful to health. Examples include promoting the use of e-cigarettes or nicotine pouches as a smoking cessation option (Azzopardi et al., 2022; Hameed & Malik, 2024), CBD to quit cannabis use (Fortin et al., 2022; Freeman et al., 2020), or the use of cannabis for potentially therapeutic purposes (Grundy et al., 2023). In short, generally speaking, industries seek to emphasize that the evidence regarding the relationship between the consumption of these products and the harms caused is inconclusive, that the impact on users' physical and mental health is highly

complex, that there is no scientific consensus, that the focus should be on the individual, or that prevalence is very low and, therefore, they claim that stricter regulation is unnecessary (Dun-Campbell et al., 2023; Savell et al., 2014, 2016).

Marketing

Among the strategies most studied and addressed from the perspective of CDHs are those related to the marketing of their products. Marketing strategies include advertising (e.g., TV commercials), promotions (e.g., special offers) and sponsorship of sports teams (e.g., soccer), celebrities (e.g., athletes), or events (e.g., concerts, festivals).

A large number of studies have shown that advertising has a significant impact on the consumption of tobacco (Donaldson et al., 2022), alcohol (Giesbrecht et al., 2024), cannabis (Rup et al., 2020; Trangenstein et al., 2021), energy drinks (Ayoub et al., 2023; Bleakley et al., 2022), as well as on gambling (Bouguettaya et al., 2020; García-Pérez et al., 2024). Therefore, it is not surprising that the regulations governing the different products also include the regulation of promotional tactics, whether in tobacco (Law 28/2005 and Law 42/2010) (Boletín Oficial del Estado [Official State Gazette], 2005, 2010b), alcohol (Law 34/1988 and Law 7/2010) (Boletín Oficial del Estado [Official State Gazette], 2010a, 1988), or gambling (Royal Decree 958/2020) (Boletín Oficial del Estado [Official State Gazette], 2020). However, despite attempts to restrict the marketing of products, the industries that commercialize them use a multitude of strategies to circumvent the regulations that govern them. These strategies will be exemplified below in the case of nicotine, alcohol, and gambling.

With regard to tobacco and other nicotine products, when the first e-cigarettes appeared, the regulations in force regulated only "tobacco products" (Boletín Oficial del Estado [Official State Gazette], 2005), so that e-cigarettes—containing nicotine but not tobacco—were not governed by these regulations. This resulted in numerous marketing campaigns on public roads (e.g. bus shelters, banners on buildings) or via social networks. Subsequently, Royal Decree 579/2017 (Boletín Oficial del Estado [Official State Gazette], 2017) was implemented, where the use of such marketing strategies on "tobacco and related products" was restricted, thus including any device capable of delivering nicotine. A similar phenomenon has occurred with the emergence of nicotine pouches in some countries, as in the absence of regulations governing them, there are companies (e.g., Velo®) that are official sponsors of sports such as Formula 1 (Sun & Tattan-Birch, 2024).

Alcohol regulations (Law 34/1988 and Law 7/2010) (Boletín Oficial del Estado [Official State Gazette], 2010a, 1988) state that "the broadcasting of television advertisements for alcoholic beverages over 20 proof" is prohibited, and that commercial communication for alcoholic beverages under 20 proof "shall be broadcast between 8:30 pm and 6:00 am". This has resulted in various alcoholic beverage brands reducing the amount of alcohol in their products from 39° to 20° (e.g., gins, whiskies), in order to be able to advertise during the permitted hours. Likewise, the emergence of numerous 0.0 presentations (e.g., beers, gins) also responds to this commercial objective of being able to be advertised without restrictions or to carry out sponsorships with sports teams, a phenomenon known as 'surrogate marketing' or 'brand sharing'

(Critchlow et al., 2025). Finally, in relation to gambling, in November 2020 Royal Decree 958/2020 came into force (Boletín Oficial del Estado [Official State Gazette], 2020) which, among its measures, includes restrictions on marketing strategies. However, it is common to see gambling operators circumvent current regulations, for example, by advertising their products on social media without time restrictions; sponsoring celebrities (e.g., Neymar) and soccer teams (e.g., Manchester City) from other countries, sponsoring soccer matches outside the Spanish League (e.g., UEFA Champions League), or using images of people who closely resemble famous personalities (Aonso-Diego, Macía et al., 2025).

Reputation Management Practices

Within reputation management practices, corporate social responsibility (CSR) is the strategy that has received the most attention. CSR is a business approach that integrates social, environmental, and ethical concerns into a company's strategies and operations, beyond its economic objectives (Fatima & Elbanna, 2023). In industries related to addictive behaviors, CSR initiatives may aim to improve their image and protect their economic interests (Mialon & McCambridge, 2018).

Industries conduct CSR through 1) educational programs (e.g., alcohol and road safety, "responsible drinking" campaigns), 2) environmental sustainability initiatives (e.g., greenwashing, cigarette butt collection), 3) awards or funding for educational programs, 4) social causes (i.e., purplewashing or rainbow washing), 5) commitment to research (e.g., funding studies), 6) systems for detecting problematic use (e.g., algorithms), and 7) aids for addressing the problem (e.g., quitlines, harm reduction alternatives) (Mialon & McCambridge, 2018; Savell et al., 2016; Wakefield et al., 2022). It is worth mentioning that there is no strong evidence that industry CSR initiatives have an impact on addictive behavior, and they may even have an unintended effect by hindering evidence-based public health policies (Mialon and McCambridge, 2018).

As an example, it is widely recognized that youth smoking prevention education programs promoted by the tobacco industry are not only ineffective, but paradoxically, seem to encourage tobacco use. Many of these programs, instead of emphasizing the risks of smoking, present it as an "adult choice" or a practice reserved for "responsible adults," thus reinforcing the idea that smoking is a rite of passage to maturity (National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health, 2012).

A comprehensive analysis of the strategies and tactics used by CDHs can be found in the studies by Lacy-Nichols, Jones et al. (2023), Gilmore et al. (2023), Lee et al. (2022), and Sharpe et al. (2022).

Environmental Control and Prevention Strategies

During the 20th century, the approach to addictive behaviors has been primarily individual, through prevention and treatment programs. Within the field of prevention, a distinction is made between demand reduction and supply reduction approaches. The main objective of **demand reduction programs** is to influence

people not to engage in addictive behavior or to reduce the frequency of use. This includes information campaigns, school prevention programs, family prevention or parenting school, and even community prevention, including television advertisements. Evidence indicates that focused and targeted actions are necessary, but not sufficient, to achieve a significant impact on people's behaviors (Burkhart, 2011; Burkhart et al., 2022). Consequently, a number of actions have been implemented under the premise that the best way to change a behavior is to change the context where the behavior takes place (Matjasko et al., 2016).

Along these lines, **prevention based on supply reduction** (also known as **environmental prevention or control measures**) approaches the problem from a broader perspective, also incorporating contextual, environmental, and commercial variables. In other words, this model seeks to limit the availability, accessibility, and distribution of substances or products. Its objective is to make access to these elements more difficult through regulatory, legal, and economic measures (Becoña, 2022; Burkhart, 2011; Burkhart et al., 2022).

Implementing effective policies to change these behaviors remains a challenge in many countries, in part due to lack of resources and the influence of different industries on these regulatory measures (Gilmore et al., 2015; McKee & Stuckler, 2018). The following is a cross-sectional presentation of different control measures that can be carried out on the various addictive behaviors that mitigate the impact of CDHs. They are categorized as follows: 1) transparency and monitoring, 2) reduction of availability and accessibility, 3) product regulation, and 4) regulation of marketing strategies.

Transparency and Monitoring

The World Health Organization's Framework Convention on Tobacco Control (FCTC), the first and only international public health treaty, is a key reference for addressing transparency in the industries (McHardy, 2021). In particular, Article 5.3 of the FCTC establishes the commitment of signatory states to "...protect their public health policies related to tobacco control from commercial and other vested interests of the tobacco industry, in accordance with national law." Furthermore, the existence of a "...fundamental and irreconcilable conflict between the interests of the tobacco industry and the interests of public health policy" (World Health Organization, 2005) is highlighted. In this regard, the need to ensure full transparency of the industries' business and trade practices is emphasized.

Specifically, and for the sake of transparency, industries should be obliged to detail the nature of their contacts and specific lobbying activities, which should be closely monitored. In addition, the manipulation of scientific evidence, promotion and advertising strategies, CSR campaigns, alliances established with front groups, and, ultimately, all kinds of interference strategies used to prolong or favor the conditions under which they operate should also be monitored (Lacy-Nichols & Cullerton, 2023). Likewise, it is essential for the scientific community to promote independent research, in order to avoid the dependence on information provided by industries regarding epidemiological data, risk factors, consequences of the use of their products, and the impact of control measures.

Reduced Availability and Accessibility

Two of the most studied variables in the field of addictive behaviors are the perceived availability and accessibility of the product (Botella-Guijarro et al., 2020; González-Roz et al., 2022). Consequently, from a public health perspective, various measures have been proposed to reduce availability and accessibility.

First, **availability** could be reduced by reducing the number of premises (e.g., gambling halls, casinos, tobaccoconists), for example, by providing licenses based on a certain number of inhabitants or under some specific conditions (e.g., far from educational centers). Similarly, opening and closing hours, specific hours for the sale of alcohol or tobacco, or the hours of operation of slot machines can be regulated. With regard to **accessibility**, the proposed measures are related to the minimum age required to purchase the product; having some mechanism to control access to the product (e.g., tobacco machine button, facial identification); increasing the price of the product (e.g., increasing taxes); adding taxes depending on the amount of alcohol, caffeine, or nicotine; or prohibiting sales in certain spaces or places (e.g., vending machines, educational centers).

Previous research has shown that the indicated measures, such as reducing the number of slot machines (Engebø et al., 2021; Erwin et al., 2021), banning consumption in some places (Hopkins et al., 2010; Levy et al., 2018), increasing taxes (Chugh et al., 2023; Kilian et al., 2023; Levy et al., 2018), increasing the minimum age of access (Brachowicz & Vall Castello, 2019; Raisamo et al., 2015), or modifying the layout of products in supermarkets (Petimar et al., 2023; Winkler et al., 2022), have had a direct impact on reducing the consumption of tobacco, alcohol, energy drinks, and gambling.

Product Regulation

Different measures are also proposed to regulate the product, for example, in relation to its maximum **size**, proposing cans of 250 ml maximum in energy or alcoholic beverages, which has been shown to be effective in reducing the consumption of alcohol (Kersbergen et al., 2018; Mantzari & Marteau, 2022) and tobacco (Martino et al., 2024; Shadel et al., 2016). Also noteworthy are the **health warnings** included on tobacco (Hammond, 2011) and alcohol products (Kokole et al., 2021; Wigg & Stafford, 2016), and even the plain packaging of tobacco and nicotine products (Moodie et al., 2022).

On the other hand, the **ingredients** contained in the product can be restricted, such as the maximum concentration of caffeine in a can or nicotine in a cigarette or in a nicotine pouch; or flavorings or aromatizing agents in nicotine products. In the area of gambling, it is possible to regulate the "near misses" on slot machines, for example, to ensure that they do not occur more often than would be expected by chance, do not give the false impression of control, or do not increase expectations of winning. Furthermore, it is not only advisable to restrict or limit the ingredients contained in the product, but it is also important that each ingredient and its concentration are clearly indicated. Those who consume energy drinks are unaware of some of the ingredients they contain (e.g., ginseng), information that is relevant when considering possible interactions and adverse effects; and healthcare personnel who perform smoking cessation treatments are unaware of the amount of nicotine or carbon monoxide in the product consumed by their patient.

With respect to cannabis, given that it is the most consumed illegal substance in Spain (National Plan on Drugs, 2023, 2024), the proliferation of stores selling derivative products should not go unnoticed. Although their sale is legal as long as they contain a very low level of THC ($< 0.2\%$) and are intended for topical use, there is a legal loophole whereby they are also sold in other formats identical to cannabis itself (such as hashish and buds), which can lead to confusion about their legality and effects. In this context, it is proposed to review and strengthen regulations to limit the sale of these products exclusively to permitted uses (e.g., cosmetic or industrial), expressly prohibiting their commercialization in presentations that simulate smokable cannabis. Clear labeling could also be required to indicate that they are not suitable for human consumption, as well as stricter inspection controls at points of sale. These measures would help reduce the risk of normalizing consumption and prevent these products from acting as a gateway to recreational use, especially among adolescents and young people (Ministry of Health, 2024b).

Regulation of Marketing Strategies

Given the impact of advertising on addictive behaviors, a series of measures aimed at restricting and limiting marketing strategies are proposed.

Marketing, including advertising, sponsorship, and promotion of these products, can be regulated taking into consideration the timing of advertising, the use of public figures (e.g., celebrities, athletes), where and how the product can be advertised (e.g., television, social networks), sponsorship of events or sports clubs, prohibition of promotions (e.g., gifts associated with the product, 2-for-1 offers), or associating use or consumption with positive qualities (e.g., success, youth). It should be noted that all these measures should be aimed at protecting the most vulnerable groups, such as children or adolescents, or those with problematic use. Several scientific studies have shown that restrictions on marketing strategies for tobacco (Blecher, 2008; Levy et al., 2017, 2018), alcohol (Siegfried et al., 2014), and gambling and betting (Aonso-Diego, Krotter et al., 2025) have a significant impact on addictive behaviors.

For a deeper understanding of control measures, we recommend reading the monograph by Becoña (2022), as well as consulting the specialized literature on each addictive behavior, for example, regarding tobacco regulation (Ministry of Health, 2024a; Peruga et al., 2021); in the case of alcohol (World Health Organization, 2024); in the context of cannabis (Caulkins & Kilborn, 2019; Shanahan & Cyrenne, 2021), regarding energy drinks (Health Canada, 2013; Kraak et al., 2020; Reissing et al., 2009; UNESDA, 2022); and for gambling-related measures (Hilbrecht et al., 2020; Livingstone et al., 2019; Puigcorb  et al., 2024).

Conclusions

Understanding addictive behaviors as a matter of individual freedom is a reductionist and simplified perspective that does not comprehensively address the complexity of these behaviors. It is essential to adopt a comprehensive public health approach that systematically addresses the problems related to addictive behaviors. This requires the implementation of control measures,

including effective supply reduction and environmental prevention strategies.

Experience in other fields (e.g., food, tobacco) shows that it is possible to generate significant changes in people's behavior through legal and regulatory measures (e.g., FCTC). It is important to recognize that assessing the effectiveness of environmental prevention measures on people's behavior is particularly complex. First, many of these measures have an impact that can only be observed in the medium to long term, which makes immediate measurement difficult. In addition, legal and regulatory interventions are often implemented within broad regulatory frameworks, which makes it difficult to isolate the specific effect of each action. Added to this is the complexity of social reality, where multiple factors interact simultaneously and make it difficult to establish direct causal relationships between a specific measure and a behavioral change. Likewise, evaluation is limited by the lack of representative and reliable data. In many cases, prevalence data in representative samples are not available, or the indicators used to measure change in addictive behaviors are not entirely accurate or objective (e.g., number of cigarettes smoked).

It should be emphasized that leaving these regulatory measures in the hands of the industries represents a considerable risk, since their economic interests conflict with the protection and promotion of health. Moreover, self-regulation has proven to be insufficient, which reinforces the need for strong, transparent regulation led by independent bodies committed to public health.

Finally, it is important to highlight that the activities of these industries materialize in society through the support and protection of other allied agents, such as political systems, sports organizations, scientific societies, and researchers. A deeper understanding of the strategies employed by these industries will raise awareness in society and strengthen the responses to address addictive behaviors more effectively.

Conflicts of Interest

The authors declare that they have no conflicts of interest in relation to the content of this article.

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